



Mycenaean Roads in Phocis

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is a chariot, the one on the right containing a charioteer (ill. 1). Athena has dismounted from the other to assist Heracles. Her owl sits on the reins of this chariot, above the horses, and on a staff (Athena's spear?) lying across the chariot sits a Siren. These are the main elements in the composition.

The early publications³ of the vase are quite inaccurate. Konitzer⁴ seems to have been the first to get any sense out of the writing, apart from the name Iolaus which had been deciphered by Welcker. Rossbach⁵ in general accepted Konitzer's reading, and his publication was in turn used by Payne.⁶ They read the words as follows: *φοῦς*, *Ἀθάνα*, *Ἡρακλῆς*, *φιόλαφος*, *Λάπυθος*.

The disturbing name amongst these is *φοῦς* read retrograde, referring, to judge from its position, to the hybrid bird-woman. Payne lists some of the attempts to explain the word (which does not occur elsewhere): nonsense inscription,⁷ the same as *φῶνξ*, a diving bird,⁸ an early form of Athena,⁹ and a lost archaic word.¹⁰ Payne is inclined to accept the last explanation. One could add Studemund's suggestion, quoted by Rossbach,¹¹ that there might be a connection between *φοῦς* and the root *βαῦ* in *βαῦξω*. If *φοῦς* is the correct reading one might throw in *βύας* (modern Greek *μποῦφος*) for consideration. Although Weicker¹² argued against any connection between Sirens and owls, I see no reason why a large birdlike creature the shape of an owl should not be given the name normally applied to a large owl.

However, in spite of Rossbach's assertion that *φοῦς* is the correct reading, it is worth noting that others were less confident. Konitzer,¹³ for example, claimed that although he was able to read *Ἀθάνα*, when it came to *φοῦς* the sigma and upsilon were clear enough, but he was not so sure of the omicron. It had a dot in the center which made it look like a theta. (Rossbach attributed this dot definitely to a blemish in the clay.) The digamma was even less clear, but the letter appeared to be written retrograde.¹⁴ In Rossbach's illustration this letter has part of a third horizontal stroke at the bottom of the upright, which would appear to indicate a letter other than digamma. So only the two letters on the left-

hand side of the word were clear to Konitzer, and the clarity faded to the right.

Now supposing we read the word from left to right (two other names on the vase are written in this direction) instead of from right to left. The first two letters, sigma and upsilon, were generally agreed upon. It may be that the next letter read as omicron was actually rho (the rho in Heracles has a very short vertical stroke). With three horizontal strokes the fourth letter is likely to have been a Corinthian E.¹⁵ This letter is made up of two almost rectangular segments in the word Heracles. As the writing appears to become less clear on the right side of the word, it is conceivable that a letter such as nu could have disappeared entirely. So the artist might have written *Συρήν*, which appears to be a possible Corinthian spelling¹⁶ for the Attic *Σιρήν*.

The word *Σιρήν* appears beside a Siren on a Tyrhenian bf. hydria in the Louvre (E 869), and the spelling *Σιληνός* for *Σειληνός*, etc. is quite normal on vases. Sir John Beazley¹⁷ considers it to be the correct form at least for *Χίρων*, *Σκίρων* and *Σιληνός*.

The etymology of the word Siren is still a subject for speculation. Frisk¹⁸ quotes many theories, including two that associate the word with either *σειρά* or *Σείριος*, assuming that *Σειρήν* was the earlier form. It is interesting, however, to recall S. Baring-Gould's explanation¹⁹ of the origin of the word: "In the classic Sirens we cannot fail to detect the wailing of the rising storm in the cordage, which is likely to end in shipwrecks. The very name of Siren is from *σπρίζω*, to pipe or whistle. . . ."

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MYCENAEAN ROADS IN PHOCIS

PLATES 15-16

An hypothesis presented at the 72nd General Meeting of the AIA¹ was that Krisa could have been a controlling transfer center at the s end of an active isthmus trade route between the Krisaeon Gulf and the Malian Gulf. This trade route would probably

der Name ebenfalls rückwärts zu lesen ist."

¹⁵ Renato Arena in *Parola del Passato* III (1966) 476 comes to a similar conclusion. He considers the letter to be an epsilon with one short stroke. Reading the letters retrograde, he believes the resultant EOTM to be a variant of **Ιῶνς*, which he would connect with the Homeric *ιωή*.

¹⁶ For Corinthian upsilon where Attic has iota see Kretschmer (supra n. 7) 31, and Payne (supra n. 2) 166, no. 44.

¹⁷ J. Beazley, "Some Inscriptions on Vases. III," *AJA* 39 (1935) 479 n. 2.

¹⁸ H. Frisk, *Griechisches etymologisches Wörterbuch* (Heidelberg 1967) s.v. *Σειρήν*.

¹⁹ S. Baring-Gould, *Curious Myths of the Middle Ages* (First and Second Series, London 1869) 429.

¹ For a summary of this paper, see Kase, *AJA* 75 (1971) 205-206.

³ *MonInst* 3 (1842) pl. 46, 2; F. G. Welcker, *Alte Denkmäler* III (Göttingen 1851) Taf. 6.

⁴ C. Konitzer, *Herakles und die Hydra* (Breslau 1861) 31ff.

⁵ O. Rossbach, *Griechische Antiken des archaeologischen Museums in Breslau* (Breslau 1889) 13ff.

⁶ Payne (supra n. 2) 161-162.

⁷ P. Kretschmer, *Die griechischen Vasenschriften* (Gütersloh 1894) 27.

⁸ M. Mayer, *Hermes* 27 (1892) 481ff.

⁹ J. E. Harrison, *Prolegomena to the Study of Greek Religion* (Cambridge 1903) 304-306.

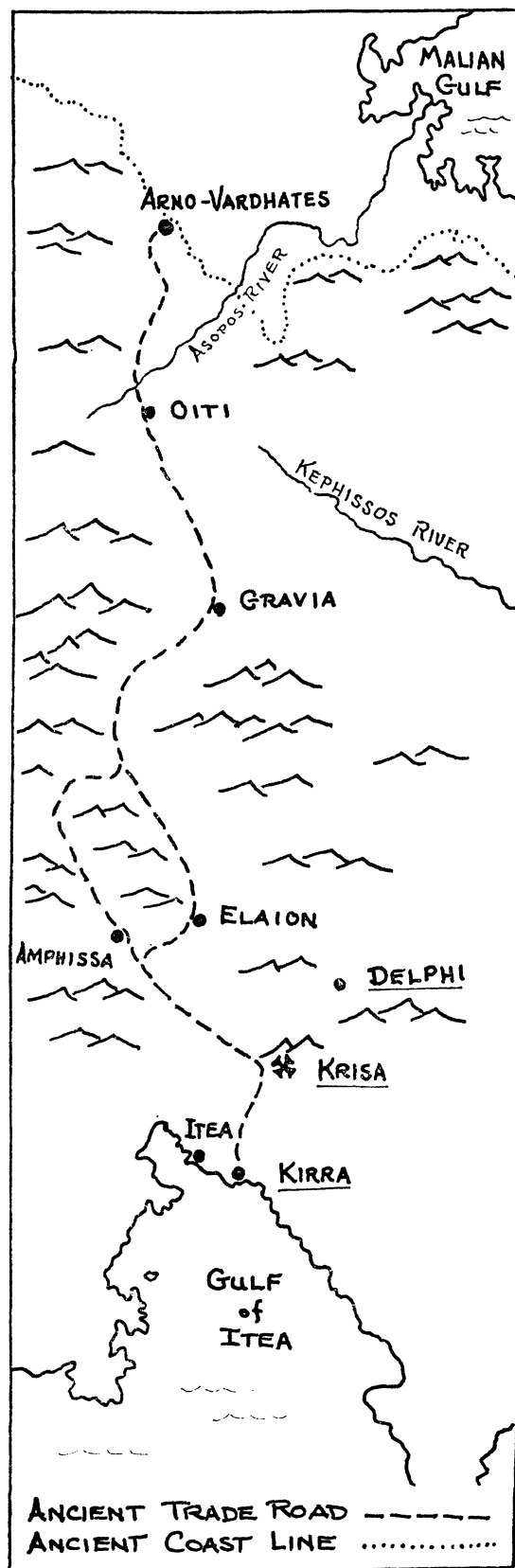
¹⁰ G. Weicker, *Der Seelenvogel in der alten Litteratur und Kunst* (Leipzig 1902) 139.

¹¹ Rossbach (supra n. 5) 14.

¹² Weicker (supra n. 10) 139.

¹³ Konitzer (supra n. 4) 33: "bei gutem Lichte mit scharfen Augen."

¹⁴ *Ibid.*: "doch scheint seine Schreibweise anzudeuten dass



ILL. 1

have gone N from Kirra on the Krisaeon Gulf, past the citadel of Krisa, over the mountains between Amphissa and Gravia to the headwaters of the Kephissos River and then on to the Malian Gulf (ill. 1). Since there is evidence of a large population around the Malian Gulf² and in the Krisaeon Plain³ in Mycenaean times, it is reasonable that trade and communications would have been established between these two areas. Mycenaean roads, connecting population centers and specific settlements, have been found in Messenia,⁴ the Argolid,⁵ and in southern Boeotia.⁶ The acropolis of Krisa commanded all of the roads going to the interior from the port of Kirra to Delphi, Amphissa, and toward northern Greece.⁷ In 1893 a Mycenaean road was traced along the S side of the N spur of the Krisa promontory.⁸ It extends in a westerly direction from the level of the plateau gradually downward into the valley where it disappears into the olive groves. This road was retraced and photographed in April 1972, as a starting point to determine the possible northward continuation of the road. The evidence which was needed to establish that a road or roads between the Krisaeon Gulf and the Malian Gulf had indeed existed was found by surface exploration in April and June 1972.⁹

From the point where the known Mycenaean road from the acropolis of Krisa disappears in the Krisaeon Plain in the N ravine, the area to the NW, bearing ca. 270° true, was traced along the base of the promontory for a distance of ca. 1.6 km. Traces of Mycenaean road construction were found at five different places along this route. Retaining walls of typical Cyclopean masonry, preserved in one to four courses on the exposed side and measuring as high as ca. 2 m., outline the direction of the road and at the same time permit measurement of its width, ca. 3.5 to 4.5 m. at several places (pl. 15, figs. 1-2). At one point, just before crossing the modern highway, a clearly outlined section of the road was traced for ca. 100 m. (pl. 15, fig. 3).

Where the black-top road from the village of Chrysso reaches the Krisaeon Plain, any tracing of the road farther to the NW was impossible because of road construction and olive groves. Nevertheless, it is reasonable to suppose that the road would have gone

² R. Hope Simpson and J. F. Lazenby, *Antiquity* 33 (1959) 102-105.

³ J. Jannoray and H. van Effenterre, *BCH* 61 (1937) 323.

⁴ W. McDonald, in *Mycenaean Studies* (Madison 1964) 217-237; W. McDonald and R. Hope Simpson, *AJA* 65 (1961) 245, 249, 257; 68 (1964) 240-242.

⁵ G. Mylonas, *Mycenae and the Mycenaean Age* (Princeton 1966) 86-87, 224-225; C. Tsountas and J. I. Manatt, *The Mycenaean Age* (Boston and New York 1897) 35-38.

⁶ A. Heurtley, *BSA* 26 (1923-25) 38-45.

⁷ L. Lerat and J. Jannoray, *RA*, Ser. 6, 8 (1936) 131-132.

⁸ *Ibid.*

⁹ Appreciation and thanks to George Mylonas and W. A. McDonald are here expressed for their help in giving positive evaluations of the photographs of the architectural evidence and for their encouragement to continue the research, the next necessary procedure being that of obtaining pottery evidence.

across the Krisaeon Plain to the nw in the direction of Amphissa.

Four passes through the mountains n of Amphissa were examined. In two of these passes, traces of Mycenaean road construction were found. Thus, two roads led n from the vicinity of Amphissa toward the Vininani area and were probably needed for communication with settlements in the interior of Phocis and beyond to the n. This multiple road system parallels, in some ways, that in the area of Mycenae, and the construction and direction of these roads in relation to the topography of the two passes also parallels the description of other Mycenaean roads and their relation to topography.¹⁰

In the pass immediately w of Elaion, compass bearing of 330° true, and through which the modern highway runs, olive grove terraces cover both slopes up to the height of ca. 500 m. above sea level.¹¹ Because the olive grove terracing would have destroyed any evidence of Mycenaean road construction, it was necessary to proceed four km. to the nw from the floor of the Krisaeon Plain up to the height of ca. 680 m. above sea level to a side, dirt road which leads to the w of the main highway. This area is much disturbed by bauxite mining. Both slopes of this pass, from the 680 m. level, were examined for a distance of ca. 1000 m. back down to the 500 m. level, the beginning of the olive grove terracing. It is at the 680 m. level in this area that a large stone structure of typical Cyclopean construction was found. The east wall, preserved in three courses and running in a direction of 330° true, measures ca. 21 m. in length by 2.5 to 3 m. in height. The e-w wall, at a right angle to the long course, could be measured only for a distance of ca. 9 m. Further e-w measurement and examination of the west wall was impossible because rubble from the bauxite mining operations covers this part of the structure. In addition, the top of the exposed portion is overgrown with holly oak. The structure certainly appears to be of Mycenaean construction and, because of its strategic position which commands the pass to the s and the entrance to the Vininani area to the n, it could well have been a fortification. The overall size of the structure, especially the e-w dimension, is too large to have been a retaining wall (pl. 15, fig. 4).

It was on the e slope of this pass which is w of Elaion, just se of the large structure, that traces of the Mycenaean road were found. From a vantage point high up on the w slope, the line of the road could be followed for ca. 500 m. Apparent Mycenaean road construction was visible for a good distance with the retaining walls defining the width of ca. 3.5 m. (pl. 15, fig. 5). In one area in particular, the small-stone understructure¹² is exposed (pl. 15, fig. 6). The gentle grade of this pass, which rises only 420 m. over a distance of 3.5 km., allowed the simplest Mycenaean road construction, avoiding the use of S

curves and the necessity of bridging torrents. The modern dirt roads n of the large Mycenaean stone structure described above and e of the Frakoula area and the extensive mining operations on the se slope of the Vininani area limited further investigation there. It is possible that one branch of the road could have descended into the Vininani valley and the other branch could have proceeded around the e rim, following the course of the modern road to the Kokkinokhoma area which is the point of descent toward Gravia to the n.

Returning once again to the area of Amphissa, the second Mycenaean road leading n goes through the pass nw of the village and directly w of the Kofinas, bearing ca. 325° true, and slopes gently upward from a level of 200 m. to the height of 700 m. A modern trail zigzags up the w slope of this pass, proceeding nw for some 6.5 km., and ends in the modern village of Prosilion which is located on the w slope of the Vininani area. It was on the e slope of this pass that a direct line of a Mycenaean road was found, gradually ascending that slope at an angle of ascent very similar to the line of the road traced on the n spur of Krisa. With only a few interruptions, the line of the road could be traced for ca. 2.3 km. Cyclopean retaining walls, up to four courses high, were found in a number of places along the line of the road on the exposed side. Where the "cut and terrace" technique was employed, horizontal cuttings into solid rock are over 2 m. wide (pl. 16, figs. 7-8). The width of the road averages ca. 3.5 m., and in the bed was found the small-stone understructure. The road ascends from a 300 m. level to a 700 m. level over a distance of ca. 2.8 to 3.0 km., including that segment of the modern trail which had merged with the Mycenaean road at the 600 m. level. From this merger point and for a distance of ca. 1000 m. up to the 700 m. level, the Mycenaean road and the modern trail run parallel to each other in certain places with the modern trail on the upside of the slope. At other places, the road and trail are one. The Mycenaean road was clearly identifiable by the Cyclopean retaining wall, in one to three courses .5 to 1 m. high on both sides of the road, and by the exposed understructure which consisted of stones ca. 25 to 30 cm. thick. The surface of the modern trail is made up of much smaller stones and pebbles. At the top of the pass, at the 700 m. level, the merged Mycenaean road and modern trail continue over the next ridge at the 800 m. level and on n to Prosilion. The road was not traced beyond the ridge.

Along the road described above, on the w slope, were located the stone foundations of two guard posts or watch towers, both of which provide a full view of the road and a clear view of the complete valley. The best-preserved watch tower is ca. 1.2 km. nw of the entrance to the pass at the s, and halfway up the w slope at a level of ca. 450 m. The semi-

¹⁰ McDonald (supra n. 4) 220ff; Mylonas (supra n. 5) 86ff; Tsountas and Manatt (supra n. 5) 35ff.

¹¹ Geographic identifications and topographic measurements

are taken from Sheets 1817-1, 1818-1, 1818-2, U.S. Army Map Service, Series M 708, Scale 1: 50,000.

¹² Mylonas (supra n. 5) 86.

circular construction, projecting from the slope, almost flat on top, and with a complete rock fill, is ca. 6 m. in diameter. The *ε* face of the wall measured over 2 m. in height and the *w* face, against the slope, is ca. .5 m. higher.¹³ The outer face of the *ε* wall is ca. 65 cm. thick (pl. 16, figs. 9-10). The second watch tower, of approximately the same measurements, is 700 m. to the *se*, with a clear view of Amphissa.

At the 540 m. level, on a narrow plateau, was found a circular ruin which seemed to have guarded the pass discussed above and a valley directly *w* of it. The stone foundations, somewhat overgrown, outline an area 40 m. *N-s* by 30 m. *E-w*. At the southernmost point are two huge Cyclopean stones separated by what seems to have been an entrance gate to this fortification. It is indeed in a position typical of known Mycenaean fortifications, and excavation will help to clarify its identity.

Bordering on the village of Prosilion, to the *s* and on approximately the same level, was found what appears to be a prehistoric fortification outlined by huge Cyclopean stones arranged to form a circular structure ca. 20 m. in diameter, with extant walls varying from 2.5 m. to 4 m. in height and in up to four or more courses. Below what seems to have been a citadel were found foundation walls of a number of buildings at successive levels. This could be the remains of a prehistoric settlement on or near the Mycenaean arterial road described above.

The pass immediately *s* of Gravia was next examined for a distance of ca. 1500 m. Traces of a Mycenaean road were found on the *w* slope. The typical Cyclopean retaining walls, on the exposed side where the "cut and terrace" technique was used, could be seen in several places along three clearly defined segments of the road (pl. 16, fig. 11). A modern trail and the highway interrupted any further investigations to the *s*. North from Gravia the course of the Mycenaean road was very difficult to determine because of agriculture in the upper reaches of the Kephissos River valley. Spot checks were made in the area between Gravia and Apostolias and no traces were found.

Realizing that the Mycenaean engineer would have taken advantage of gradual inclines and natural contours of the land wherever possible, it appeared that

the best course would have been through the central part of the Livadhorrakhi area to the *nw*. In this direction, toward the village of Oiti, there would have been a gradual incline to a minimal height above sea level without the construction of too many *S* curves. To have gone over the ridge between Oiti and the Pournaraki area would have required a very sudden ascent and an equally sudden descent into the Asopos River valley. At about three km. *nw* of Oiti is a plateau running *E-w* at the level of ca. 700 m. At the *w* end of this plateau were found traces of what appears to be a Mycenaean road descending to the *n* in the direction of the village of Kouvela (pl. 16, fig. 12). This road was traced in a gradual descent for ca. 500 m. Now heavily overgrown, Cyclopean retaining walls support the road on the *n* side where the "cut and terrace" technique was used. Time did not permit tracing the road any further to the *n*; however, topographically it appeared that the road could well have gone on *n* through the vicinity of the village of Kouvela, across the Pergara area plateau, and could have descended into the Malian Gulf area near the village of Ano-Vardhatais. This is an area where pottery evidence seems to confirm settlements in Mycenaean times.¹⁴

Thus, the evidence of Mycenaean roads extending *n* from Amphissa through the Vininani area, at Gravia, and on *n* beyond Oiti certainly supports the hypothesis that there was indeed prehistoric road communication between the Krisaeon Gulf and the Malian Gulf.

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THE ORIGINS OF THE GREEK COLONY AT PANTICAPAEUM¹

The emporia thesis has, on the whole, predominated in both prerevolutionary and Soviet scholarship on the origins of Greek colonization in the northern Black Sea area,² although recently this explanation has been specifically criticized as it applies to the northwestern Black Sea colonies of Berezan and Olbia.³ To date, however, there has been no special attempt to evaluate the accuracy of this theory with

¹³ These dimensions are almost identical to those of the watch tower in the *s* ravine at Krisa, as identified by Jannoray and van Effenterre (supra n. 3) 325.

¹⁴ R. Hope Simpson, *A Gazetteer and Atlas of Mycenaean Sites* (London 1965) 139-140.

¹ The following abbreviations have been adopted for Soviet periodicals: *Arkho* = *Arkheologicheskie Otkrytiia*; *AS* = *Arkheologicheskii Sbornik* (Gosudarstvennyi Ermitazh); *KSIA* = *Kratkie Soobshcheniia Instituta Arkheologii* (Moscow); *MIA* = *Materialy i Issledovaniia po Arkheologii SSSR*; *SA* = *Sovetskaiia Arkheologia*; *VI* = *Voprosy Istorii*.

² For the prerevolutionary period see Ellis H. Minns, *Scythians and Greeks* (Cambridge 1913) 436-444, 451-453. Soviet scholarship on the origins of Greek colonizations is reviewed

in Ia. V. Domanskii, "O nachalnom periode sushchestvovaniia grecheskikh gorodov Severnogo Prichernomor'ia," *AS* 7 (1965) 116-141, and Helmut Neubauer, "Die griechische Schwarzmeeerkolonisation in der sowjetischen Geschichtsschreibung," *Saeculum* 11 (1960) 132-155. A concise statement of the three most frequently advanced theories (emporion, fishing stations, settlements of craftsmen-agriculturalists) can be found in I. T. Kruglikova, "Rol' zemledeliia v antichnykh gosudarstvakh Severnogo Prichernomor'ia v rannii period ikh sushchestvovaniia," *KSIA* 109 (1967) 4.

³ V. V. Lapin, *Grecheskaia kolonizatsiia Severnogo Prichernomor'ia* (Kiev 1966) sharply attacks the emporia thesis in general but focuses upon the Greek settlement at Berezan. Ia. V. Domanskii, "O nachalnom periode," also raises doubts about the emporia thesis.



FIG. 1



FIG. 2



FIG. 3

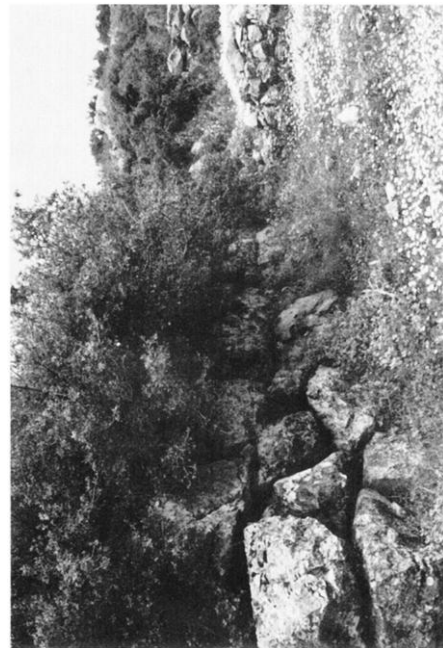


FIG. 4

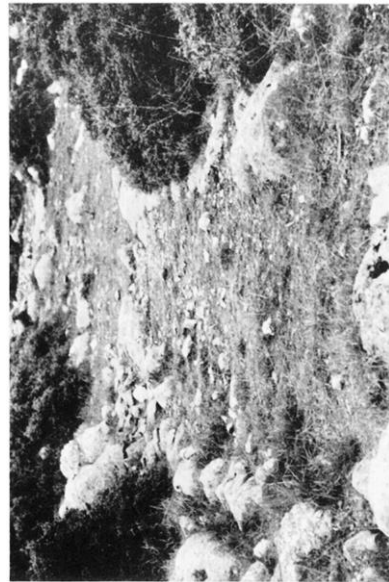


FIG. 5

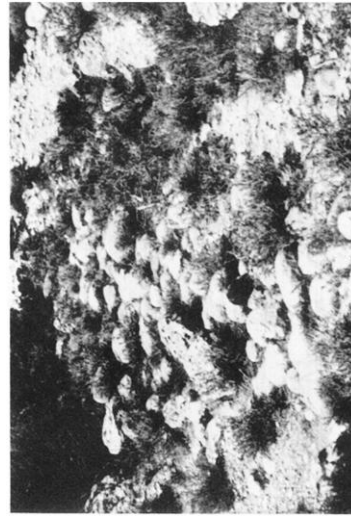


FIG. 6

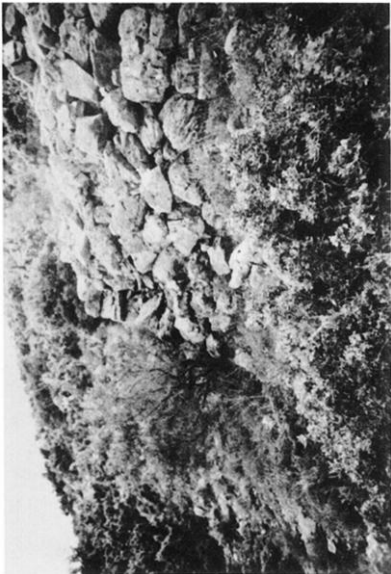


FIG. 9

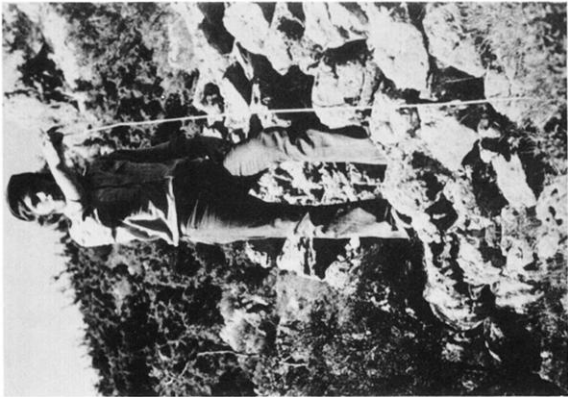


FIG. 10



FIG. 8



FIG. 12

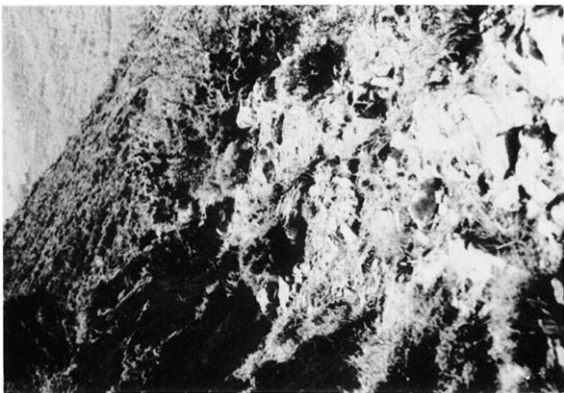


FIG. 7

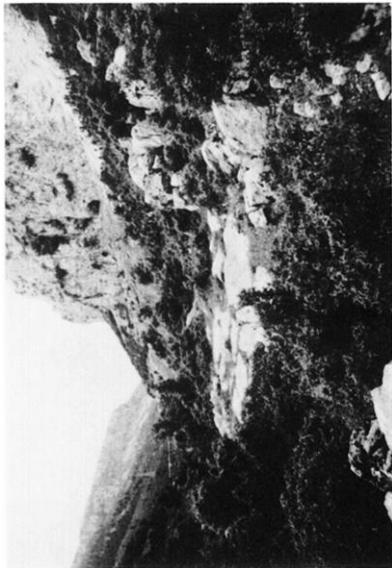


FIG. 11